

## HUB REVIEW FINDINGS - MILLBRAE BART/CALTRAIN STATION

### Date of Hub Review:

October 24, 2006

### Participants:

Pierce Gould, Metropolitan Transportation Commission (MTC); Laura Timothy, BART; Larry Stueck, San Mateo County Transit / Joint Powers Board (SamTrans/JPB), Elizabeth Cruz, Wilbur Smith Associates; Carol Levine, Wilbur Smith Associates; Harley Goldstrom, Harley & Associates.

### Existing Hub Conditions:

The Millbrae BART/Caltrain Station is a relatively new facility, constructed in 2003. It is the end of the line station of BART's most recent service extension to the San Francisco International Airport. The station provides key connections between BART, Caltrain rail services, SamTrans buses, paratransit and shuttles. The facility has two entrances. The east entrance is located at a large bus intermodal facility linking to SamTrans service, a 4-story parking structure with approximately 3,000 spaces, bicycle parking and pedestrian drop-off. On the west side of the station there is a smaller bus intermodal facility, taxi drop-off, a small surface parking lot, bicycle parking and pedestrian access from El Camino Real and numerous Millbrae businesses. Presently only one BART line, the Dublin/Pleasanton line, provides direct connection to the Millbrae Station. However, this is anticipated to change in the future. Caltrain provides both "baby bullet" (express) and regular service to this station between San Francisco to the north and San Jose to the south.

## CORRECTIVE ACTIONS

### WAYFINDING:

In general, comments from the hub review team noted a lack of comprehensive directional signs directing customers to the appropriate BART, Caltrain and Samtrans bus boarding platforms. Existing signs were considered to be too small, difficult to see, and at times inappropriately placed. The transit operators and the customers served by the station would greatly benefit from a new, up-to date, and consistent wayfinding sign program. The program would provide easy to read, easy to find hierarchical information to direct customers between and within transit services and station entries/exits in a convenient and accessible manner.

Wayfinding program corrective actions should include but not be limited to:

#### Identification of station or transit operator

- Provide larger more visible name for the east and west entries to the station. Station name signs should provide sufficient contrast against a background to prominently and boldly display station name. Entry signs should include operator logos (see checklist questions #1,2, 5; photos #1-3);

## HUB REVIEW FINDINGS - MILLBRAE BART/CALTRAIN STATION

### Moving around or entering or exiting the station

- Install signs at all decision points in the hub, which direct passengers between BART, Caltrain and Samtrans buses, ticket machines, future RTIC's, bicycle facilities, and delineates the accessible pathway throughout the hub facility including:
  - Ground level entries on east and west sides (photos #1-3);
  - Station concourse (photo #4);
  - Ticket machines and future RTIC's;
  - BART platforms and Caltrain platforms (photo #5);
  - Bus intermodal facilities on east and west sides (photos #6-7);
  - Parking areas on east and west sides.
- Improve wayfinding between the station concourse and parking structure. The transition between these entities should be streamlined through directional signage that includes operator logos (see checklist questions #2, 9; photos #8-10);
- Better define the connection to Caltrain. Although signs are clear to specific platforms, it is not readily apparent which platform serves which train direction (see checklist question #12, photo #11);
- Use a consistent set of graphics, fonts, and colors for directional signs (see checklist questions #7, 8, 12, 14);
- Add international icons and symbols where appropriate;
- MTC will work with a transit operator who will take the lead on the development of a comprehensive and consistent wayfinding sign program, including providing funding for program development and P S & E.

### Identification of where to board or wait for transit

- Caltrain platforms are clearly identified but it is often difficult to determine which platform is correct for which direction (see checklist #18);
- Install consistent Braille signs on all bus stop poles and/or shelters. In addition, many bus stops do not use poles for mounting bus flags. This will make it difficult for limited-sight passengers to find their bus. Use mounting hardware that allows for changeable route information (see checklist question #23, photos #7, 16);
- Bus stop location maps need improvement. They are difficult to locate and to read (photo #13).

## HUB REVIEW FINDINGS - MILLBRAE BART/CALTRAIN STATION

### CUSTOMER INFORMATION:

Customer information at the Millbrae BART/Caltrain Station is presented in large quantities that make it overwhelming for patrons to understand. Additionally, the information tends to be dispersed throughout the hub in a variety of formats and accuracies, contributing to added confusion among patrons. Customer information displays should be coordinated with wayfinding signage at key locations within the facility. The following customer information elements should be addressed:

#### Regional Transit Information (RTIC)

Currently, the Millbrae Station does not have an RTIC. As such, checklist comments suggest the following improvements:

- The RTIC(s) would include
  1. The regional 511.org transit map; and
  2. Subregional or system map for local operators.
- Three RTIC installations are recommended:
  - Station Concourse: Reuse either the BART secondary station agent booth or Caltrain ticket booth to provide an RTIC with regional and local transit information (photo #15);
  - East side entry: Install a new RTIC here to provide 511.org transit connection information;
  - West side entry and Caltrain platform: Install a new RTIC here to provide regional 511.org transit information for those passengers and residents who use this side of the station (photo #16-17);
- Combine RTIC installations with local transit information wherever possible (see checklist questions #28-30).

#### Local Transit Information

- Consider three locations for customer information displays:
  - Inside near BART faregates (photo #18);
  - Outside near Caltrain boarding platform (photo #5);
  - At the easterly and westerly bus boarding platform (photos #7, 12);
- Local transit information would include:
  1. Subregional or system map for local operators;
  2. Schedules and service hours;
  3. Fares and specific system information;
  4. Hub layout map; and
  5. Local vicinity map.

## HUB REVIEW FINDINGS - MILLBRAE BART/CALTRAIN STATION

- Install and prominently display appropriately sized and legible bus schedules and route information at all bus stops/shelters (see checklist questions, #20, 25);
- The hub layout and hub vicinity maps currently provided at the Millbrae Station are the best examples of clear, easy to read maps. The maps include: detailed and accurate renderings of the station layout illustrating all access points (entrances, exists, elevator locations), “you are here” identifiers, nearby key points of interest, a regional context map. As such, they should be employed as models of what could be provided throughout the region (see checklist questions #29, 30, photo #19);

### REAL-TIME SIGNAGE:

#### Existing Real-Time Signage

Real-time signs are currently provided for BART, Caltrain, and SamTrans services. Signs exist in the following locations:

- BART ticket area, station agent booth, “paid” area, and train boarding platforms (photo #18);
- BART Lobby- (photo #20);
- SamTrans intermodal facility (east entry) bus boarding platforms (photo #21);
- Caltrain Information Booth (photo #15);
- Caltrain boarding platforms - Currently these are variable message signs which provide scheduled arrival information. They will also provide real-time information in the event of service delays (photo #5);
- Escalators leading to BART (photo #22).

#### Future Real-Time Signage Installation

The existing variety of real-time signs at this station is confusing and many times overwhelming. It is also not obvious which services are included on the sign boards. Corrective actions include:

- Repair and maintain existing signs. Use existing electronic sign boards and integrate them into the new wayfinding sign program in order to provide a consistent set of transit information and real-time rail transit departures;
- Consider integrating concourse level BART and Caltrain signs to provide a consistent set of information regarding platform services and next train;
- Improve the consistency of information provided by Samtrans bus signs and clarify bus route number and platform numbering system.

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HUB REVIEW FINDINGS - MILLBRAE BART/CALTRAIN STATION

STATION PHOTOGRAPHS



1. Main station entrance. Contrast of Station Sign against background could be improved.



2. Station Operator logos at the West entrance. Should be bolder and larger.



3. Station Sign at West Entrance. Should be larger and bolder and does not include Samtrans or BART.



4. Station concourse.



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## HUB REVIEW FINDINGS - MILLBRAE BART/CALTRAIN STATION



5. Caltrain boarding area. Note variable message signs.



6. East Side Bus Terminal-View from 4<sup>th</sup> Floor Garage



7. SamTrans Bus Stop: West Side.



8. Signage at elevator inside Parking Garage. Note temporary green sign on elevator door indicating BART entrance from fourth floor.



9. Hallway leading to BART entrance from 4<sup>th</sup> Floor Garage. Note lack of signage.



10. Close-up of signage to hallway in photo #9.

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## HUB REVIEW FINDINGS - MILLBRAE BART/CALTRAIN STATION



11. CalTrain Directional Sign to Boarding Platforms



12. SamTrans bus shelter and boarding area. Note schedule is difficult to find.



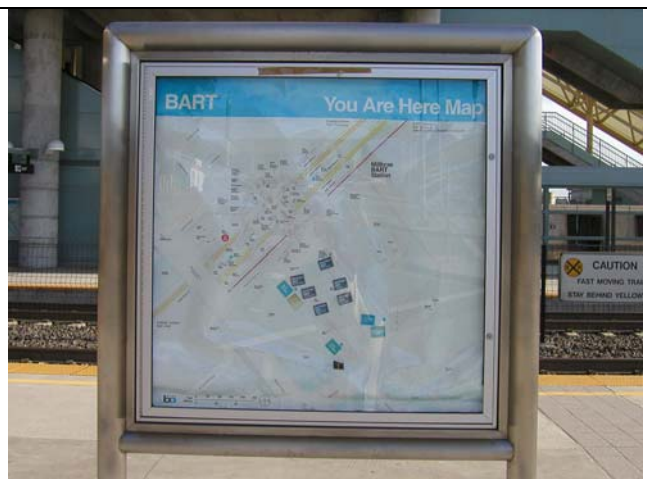
13. Bus stop location map in station concourse.



14. Temporary Directional Sign for Caltrain Boarding Platforms



15. Caltrain Information Booth - Lacks attendant and printed information.



16. Caltrain Boarding Platform: BART Station Area Map with SamTrans Boarding Locations.



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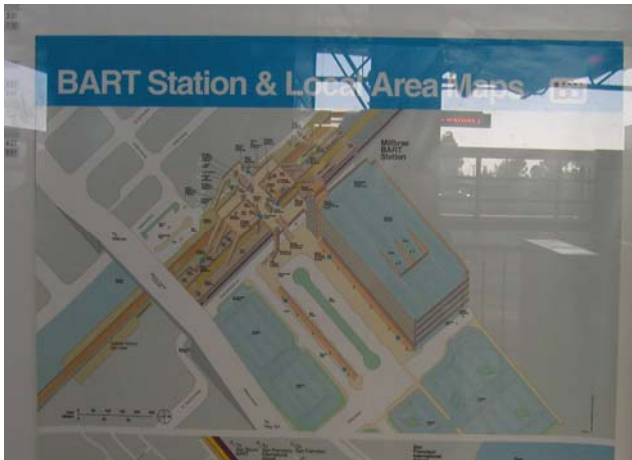
## HUB REVIEW FINDINGS - MILLBRAE BART/CALTRAIN STATION



17. Caltrain Boarding Platform:  
Information Display Case.



18. BART faregates.



19. Existing hub layout map.



20. Real time SamTrans schedule information



21. Real-Time SamTrans signage. Provides route  
information and arrival times



22. Access to concourse from Caltrain boarding area.



## HUB REVIEW FINDINGS - MILLBRAE BART/CALTRAIN STATION

Hub Review Checklist Summary			
			WAYFINDING
			Identification of station or transit operator
Yes	No	N/A	
2	3		1. The hub is clearly identified, visible from surrounding roadways by vehicular and pedestrian traffic. <ul style="list-style-type: none"> <li>Hub is clearly identified but signs from surrounding roadways could be improved, especially from El Camino;</li> <li>Need larger signs to identify station.</li> </ul>
2	1		2. Entrances into the hub are clearly identified, visible from approaches by vehicular and pedestrian traffic. <ul style="list-style-type: none"> <li>Entrances are signed, but could be more prominent;</li> <li>Entrance from level 4 of parking structure is not clear;</li> <li>Need better wayfinding from this point to BART and Caltrain.</li> </ul>
3	1		3. Transit operators serving the hub are clearly identified at the entrances with their logo and name. <ul style="list-style-type: none"> <li>Yes</li> </ul>
1			4. Station identification reinforces information on printed maps and schedules. <ul style="list-style-type: none"> <li>Yes</li> </ul>
2	2		5. Station name is identified on the entrance sign along with agency logo. <ul style="list-style-type: none"> <li>Yes, but not easy to see or find;</li> <li>Signs need to be bolder.</li> </ul>
			Moving around or entering or exiting the station
Yes	No	N/A	
3	1		6. Agency logos are included with names on directional signs within the facility. <ul style="list-style-type: none"> <li>Yes sometimes but not consistent.</li> </ul>
3	1		7. Turnstile level street exit directional signs also include connection agency names and logs. <ul style="list-style-type: none"> <li>Yes but not consistent or effective;</li> <li>Sometimes it is confusing because there are two bus boarding areas and signs do not clarify locations or directions;</li> <li>Need to improve connections and information.</li> </ul>
3	2		8. Vital connections information is grouped together on signs. <ul style="list-style-type: none"> <li>The information kiosk is very good;</li> <li>Not all the information is in one place so it is hard to find;</li> <li>Incorporate this information into the wayfinding program.</li> </ul>

## HUB REVIEW FINDINGS - MILLBRAE BART/CALTRAIN STATION

1	2		<p>9. Connection directions are provided at each decision point and there are no gaps in the connection directional information flow.</p> <ul style="list-style-type: none"> <li>Transition between BART and Caltrain is not well defined;</li> <li>Not easy to make connections.</li> </ul>
0	3		<p>10. Exiting directional signs list a hierarchy of the popular destinations and connecting services to reach these destinations.</p> <ul style="list-style-type: none"> <li>This is okay for buses because existing real-time information.</li> </ul>
0	0	1	<p>11. Where connecting transit service is not within the station, clear directional signage (including walking distance) is provided to these services. All sign placement complies with 2004 ADAAG guidelines.</p> <ul style="list-style-type: none"> <li>This is not always the case. Could be improved.</li> </ul>
3	2		<p>12. In stations with multiple track/gate or train/ferry service, confirmation of agency, destination, and real-time departure is associated with those services.</p> <ul style="list-style-type: none"> <li>Yes for BART and Caltrain;</li> <li>Caltrain signs were not working and logo is not consistent.</li> </ul>
2	0		<p>13. Clear sightlines are maintained to signs and all sign placement complies with 2004 ADAAG guidelines.</p>
0	4		<p>14. Exiting connection information is color-coded to emphasize and make it easier to find directions and connections.</p> <ul style="list-style-type: none"> <li>Not currently used, but color coding could substantially help passengers distinguish between BART, Caltrain and buses.</li> </ul>
3	1		<p>15. Signs are legible with adequate message size appropriate for viewing distance, proper contrast ratios, and illumination levels.</p> <ul style="list-style-type: none"> <li>Illuminated signs are not maintained.</li> </ul>
3	0		<p>16. Arrows are of consistent design and are bold in visual balance with text and are closely associated with their messages.</p>
			<b>Identification of where to board or wait for transit</b>
Yes	No	N/A	
2	1		<p>17. Transit boarding platforms are clearly and boldly identified.</p> <ul style="list-style-type: none"> <li>Yes, but directional information is confusing.</li> </ul>
2	1		<p>18. Where a particular transit route utilizes different boarding points for opposite directions of travel, directional signage is provided to the different boarding point including platform route number, name, and route terminus (a place name).</p> <ul style="list-style-type: none"> <li>Information is here but not easy to find;</li> <li>Can be confusing on Caltrain platforms.</li> </ul>
2	1		<p>19. At commuter rail, ferry terminals or bus stations, the boarding area identification number is large and bold with service agency, destination, number, and "real-time" departure is provided.</p> <ul style="list-style-type: none"> <li>Real-time information on Caltrain platform was not working.</li> </ul>

## HUB REVIEW FINDINGS - MILLBRAE BART/CALTRAIN STATION

2	1		<p>20. Schedule frequency and last departure information are provided at transit boarding platforms and are consistent with 2004 ADAAG guidelines.</p> <ul style="list-style-type: none"> <li>Samtrans bus schedules are there, but not easy to find or read.</li> </ul>
3	1		<p>21. Bus stop signs have agency logos large and bold.</p> <ul style="list-style-type: none"> <li>Signs could be bolder. They are out of scale with other features.</li> </ul>
4	1		<p>22. Bus stop signs have accessibility and parking restrictions as auxiliary signs below the basic bus stop signs.</p>
3	0		<p>23. Bus route identification on bus stop signs comply with 2004 ADAAG Guidelines - minimum 2" route number character height.</p>
3	0		<p>24. Bus stop sign faces are visible from each approach direction.</p>
2	1		<p>25. Bus shelters have associated bus stop signs which are consistent with the design guidelines described in this checklist.</p> <ul style="list-style-type: none"> <li>Need to add bus layout information at both east and west bus platforms;</li> <li>With no bus stop poles, it would be very difficult for passengers who are blind to find their bus. Consider additional Braille signs or guides.</li> </ul>
			<b>Regional Transit Information (RTIC)</b>
Yes	No	N/A	
0	2	2	<p>26. Transit information in Regional Transit Information Display Cases is accurate and easy to read.</p> <ul style="list-style-type: none"> <li>Currently no RTIC information;</li> <li>Caltrain ticket booth is closed and not effectively used for transit information.</li> </ul>
0	2	2	<p>27. Transit operator and route maps for the nine-county San Francisco Bay Area are posted in the Regional Transit Information Display Cases.</p> <ul style="list-style-type: none"> <li>No this is not the case;</li> <li>Consider using Caltrain ticket booth to provide regional and local transit information.</li> </ul>
1	3		<p>28. Hub specific information is provided in a case adjacent to the Regional Transit Information Display Case and at other critical locations at the hub.</p> <ul style="list-style-type: none"> <li>No RTIC;</li> <li>Although bus layout map is shown, it can be confusing because the use of bus stop and bus # is not consistent.</li> </ul>
3	1		<p>29. Hub layout maps are provided in the hub information display case.</p> <ul style="list-style-type: none"> <li>This is the best example of a great hub layout map, because it is 3-D.</li> </ul>
3	1		<p>30. Map of hub vicinity with landmarks and attractions is posted in the hub information case.</p> <ul style="list-style-type: none"> <li>This is the best example of a hub vicinity map because it is combined with the hub layout map. Perfect size and location.</li> </ul>

## HUB REVIEW FINDINGS - MILLBRAE BART/CALTRAIN STATION

4	0		<p>31. Posted transit information (i.e. maps, schedules) is well maintained, accurate and easy to find.</p> <ul style="list-style-type: none"> <li>• This is very good. Kiosks are well used;</li> <li>• Need to coordinate better with a new RTIC displays.</li> </ul>
1	2		<p>32. Schedules, fare, transfer information and hub layout maps are located near bus stops and loading platforms.</p> <ul style="list-style-type: none"> <li>• This could easily be improved by providing this information at both the east and west bus platforms.</li> </ul>
2	1	1	<p>33. Printed schedules and maps distributed at the hub contain accurate information and are consistent with the information provided in the Regional Transit Information Display Cases.</p>
			<b>REAL-TIME SIGNAGE</b>
			<b>Existing Real-Time Signage</b>
Yes	No	N/A	
4	1		<p>34. Real-time signage is provided at the hub.</p> <ul style="list-style-type: none"> <li>• BART platform and station agent booth;</li> <li>• BART concourse;</li> <li>• Caltrain platform-These are variable message signs which can provide real-time information in the case of service delays.;</li> <li>• Samtrans bus signs.</li> </ul>
			<p>35. Location of signs (indicate on station diagram).</p>
			<p>36. Description and photo of signage types.</p> <ul style="list-style-type: none"> <li>• BART train destination, next train, time, safety announcements and advertising;</li> <li>• BART platform information;</li> <li>• Caltrain signs not working</li> <li>• Samtrans bus route information, destination and next bus.</li> </ul>
			<p>37. Identification of transit services included on real-time signage (Include operator and mode).</p>
			<b>Future Real-Time Signage Installations</b>
			<p>38. Describe location(s) for future real-time signage locations (indicate on station diagram). Refer to Appendix A Real-Time Technology Guidelines page A-24</p> <ul style="list-style-type: none"> <li>• Add two new RTIC's on concourse level and one on Caltrain platform #5.</li> <li>• Can reuse Caltrain ticket booth for RTIC information;</li> <li>• Can reuse BART station agent secondary booth for RTIC information</li> </ul>
			<p>39. Describe transit services that would be included in real-time signage displays. Refer to Appendix A pages A-24-26.</p> <ul style="list-style-type: none"> <li>• Can have an integrated sign that provides BART, Caltrain and Samtrans bus information.</li> </ul>